

1                    **ARRANGEMENT AND METHOD FOR MAINTAINING**  
2                    **A MINIMUM FLOW VELOCITY IN THE COOLANT RETURN OF A**  
3                    **MACHINE TOOL COOLANT FILTRATION SYSTEM**  
4

5                    **Abstract of the Invention**

6                                       An arrangement and method for maintaining a minimum flow velocity in return  
7                    piping receiving dirty coolant from a plurality of machine tools receiving filtered coolant from a  
8                    filter apparatus. A bypass line diverts clean coolant into the return piping via a pressure reducing  
9                    valve set to allow make up flow of clean coolant into the return piping just sufficient to maintain  
10                   a pressure corresponding to the minimum flow velocity in the return piping. A pressure  
11                   maintaining valve is interposed upstream of the pressure reducing valve and set to restrict flow as  
12                   necessary to maintain adequate pressure to insure that the machine tools are adequately supplied  
13                   with clean coolant at start up prior to the beginning of contaminated flow in the return piping.  
14